Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
The Commercial Mobile Alert System	)	PS Docket No.07-287
	)	
	)	

NOTICE OF PROPOSED RULEMAKING

Adopted: December 14, 2007; **Released: December 14, 2007**

Comment Date: [30 days from the date of publication in Federal Register]
Reply Comment Date: [45 days from the date of publication in Federal Register]

By the Commission:

I. INTRODUCTION

1. With this Notice of Proposed Rulemaking (NPRM), we initiate a comprehensive rulemaking to establish a Commercial Mobile Alert System (CMAS), under which Commercial Mobile Service providers may elect to transmit emergency alerts to the public. This proceeding represents our next step in compliance with the Warning Alert and Response Network (WARN) Act[1] requirement that the Commission enable commercial mobile service alerting capability for providers that elect to transmit emergency alerts.[2] In addition, with this rulemaking we continue to address our obligations under the President's "Public Alert and Warning System" Executive Order that the Commission "adopt rules to ensure that communications systems have the capacity to transmit alerts and warnings to the public as part of the public alert and warning system."[3]

2. Section 602 of the WARN Act requires the Commission to adopt: (1) system critical protocols and technical requirements for the CMAS; (2) a mechanism under which commercial mobile service providers ("CMS providers")licensees[4] may elect to participate in the CMAS and disclose to their subscribers whether or not they will participate; (3) rules under which licensees and permittees of noncommercial educational (NCE) broadcast stations or public broadcast stations install necessary equipment and technologies on, or as part of, any broadcast television digital signal transmitter to enable the distribution of geographically targeted alerts by CMS providers that have elected to participate in the CMAS; and (4) technical testing requirements for CMS providers that elect to transmit emergency alerts and for the devices and equipment used by such providers for transmitting such alerts. In this NPRM we

[1] Security and Accountability For Every Port Act of 2006 (SAFE Port Act), Pub.L. 109-347, Title VI-Commercial Mobile Service Alerts (WARN Act).

[2] WARN Act, §602(a).

[3] *See Public Alert and Warning System*, Exec. Order No. 13,407, 71 Fed. Reg. 36975 (2006) (*Executive Order*), §3(b)(iii).

[4] For purposes of Section 602 of the WARN Act, Congress specifically defined "commercial mobile service" as that found in Section 332(d)(1) of the Communications Act of 1934, as amended, 47 U.S.C. § 332(d)(1). WARN Act § 602(b)(1)(A).

seek comment on questions pertaining to all of these statutory requirements.[5] We also seek comment about how the issues discussed in the NPRM relate to the Commission's activities in connection with the Emergency Alert System (EAS).[6]

3. By starting this rulemaking today, we take a significant step towards implementing one of our highest priorities -- to ensure that all Americans have the capability to receive timely and accurate alerts, warnings and critical information regarding impending disasters and other emergencies irrespective of what communications technologies they use. As we have learned from recent disasters such as the Southern California fires, the Virginia Tech shootings, and the 2005 hurricanes, such a capability is essential to enable Americans to take appropriate action to protect their families and themselves from loss of life or serious injury. This rulemaking represents our continued commitment to satisfy the mandate of the Communications Act that the Commission promote the safety of life and property through the use of wire and radio communication.[7]

4. This NPRM is the latest example of our commitment to enhance the redundancy, reliability and security of emergency alerts to the public by requiring that alerts be distributed over diverse communications platforms. Most recently, we expanded the EAS from its legacy in analog television and radio to include participation by digital television broadcasters, digital cable television providers, digital broadcast radio, Digital Audio Radio Service (DARS) and Direct Broadcast Satellite (DBS) systems.[8] As we noted in our 2005 EAS Further Notice of Proposed Rulemaking, wireless services are becoming equal to television and radio as an avenue to reach the American public quickly and efficiently.[9] As of June 2007, approximately 243 million Americans subscribed to wireless services.[10] Wireless service has progressed beyond voice communications and now provides subscribers with access to a wide range of information critical to their personal and business affairs. In times of emergency, Americans rely on their mobile telephony service to receive and retrieve critical, time-sensitive information. A comprehensive mobile alerting system would have the ability to reach people on the go in a short timeframe, even where they do not have access to broadcast radio or television or other sources of EAS. Providing critical alert information in this respect will ultimately help avert danger and save lives.

II. BACKGROUND

5. On October 13, 2006, the President signed the Security and Accountability For Every Port (SAFE Port) Act into law.[11] Title VI of the SAFE Port Act, the WARN Act, establishes a process for CMS providers to elect to transmit emergency alerts to their subscribers. The WARN Act requires that

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[5] As discussed in greater detail, *infra*, the WARN Act imposes different deadlines on the rulemakings required by sections 602(a), (b), and (c). We intend to complete these rulemakings through one or more orders on or before the relevant deadlines.

[6] *See, e.g., Review of the Emergency Alert System; Independent Spanish Broadcasters Association, the Office of Communication of the United Church of Christ, Inc., and the Minority Media and Telecommunications Council, Petition for Immediate Relief*, EB Docket No. 04-296, Second Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 13275 (2007)(*EAS Second Report and Order and Further Notice of Proposed Rulemaking*).

[7] *See* 47 U.S.C. § 151.

[8] *See Review of the Emergency Alert System*, EB Docket No. 04-296, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 18625 (2005) *(EAS First Report and Order and Further Notice) at 18626.*

[9] *See Review of the Emergency Alert System*, EB Docket No. 04-296, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 18625 (2005) *(EAS First Report and Order and Further Notice) at 18653.*

[10] Cellular Telecommunications & Internet Association, Mid-Year 2007 Top-Line Survey Results, available at http://files.ctia.org/pdf/CTIA_Survey_Mid_Year_2007.pdf (last viewed on December 12, 2007).

[11] *See* note 2, *supra*.

we engage in a series of activities to accomplish that goal. These requirements are listed below, followed by our activity to satisfy that requirement:

- By December 12, 2006 (60 days of enactment), we were required to establish an advisory committee to recommend system critical protocols and technical recommendations for the CMAS, and arrange for the Committee to hold its first meeting.[12] We formed the Commercial Mobile Service Alert Advisory Committee (CMSAAC), which had its first meeting on this date.[13]

- By April 13, 2007 (180 days of enactment), we were required to determine what constitutes "remote communities effectively unserved by commercial mobile service [ ] for the purpose of enabling residents of those communities to receive emergency alerts." This required determination relates to a program[14] under which NOAA may issue grants to provide for outdoor alerting technologies. We issued a Declaratory Ruling addressing this issue on April 11, 2007.[15]

- By October 12, 2007 (one year of enactment), the CMSAAC was required to provide system critical recommendations regarding technical requirements and protocols for the CMAS to the Commission.[16] The CMSAAC submitted its report on this date. The CMSAAC recommendations are attached at Appendix B.[17]

- Within 180 days of receipt of the CMSAAC's recommendations, we must complete a proceeding to adopt technical standards, protocols, procedures and technical requirements based on recommendations submitted by the CMSAAC, necessary to enable commercial mobile service alerting capability for commercial mobile service providers.[18]

- Within 90 days of our adoption of CMAS technical requirements, we must complete a proceeding to require NCE and public broadcast station licensees and permittees to install equipment to enable the distribution of geographically targeted alerts by CMS

[12] WARN Act, sections 603(a), (d).

[13] As required by the WARN Act, the CMSAAC consisted of representatives from state and local governments, federally recognized Indian tribes, representatives of the communications industry, including both wireless service providers and broadcasters, vendors and manufacturers and national organizations representing people with special needs. The Committee also included other qualified stakeholders such as representatives of the Federal Emergency Management Agency (FEMA) and the National Oceanic & Atmospheric Administration (NOAA). *See* Notice of Appointment of Members to the Commercial Mobile Service Alert Advisory Committee; Agenda for December 12, 2006 Meeting, *Public Notice*, 21FCC Rcd 14175, DA 06-2474 (2006).

[14] *See* WARN Act, section 605.

[15] In the Matter of Implementation of a Grant Program for Remote Community Alert Systems Pursuant to Section 605(a) of the Warning, Alert, and Response Network (WARN) Act, PS Docket No. 07-8, Declaratory Ruling, 22 FCC Rcd 7214 (2007).

[16] WARN Act, section 603(c).

[17] The CMSAAC held a total of six meetings during which it received progress reports from its internal working groups and presentations from interested parties. On October 3, 2007, the Committee approved a set of recommendations and submitted them on October 12, 2007. In developing its recommendations, the CMSAAC consulted the National Institute of Standards and Technology (NIST) as required by Section 603(g) of the WARN Act.

[18] WARN Act, section 602(a).

providers that have elected to transmit emergency alerts.

- Within 120 days of our adoption of CMAS technical requirements, we must complete a proceeding that, among other things, establishes the process by which CMS providers would elect to transmit emergency alerts to subscribers.[19]

- Within two years after completion of the technical rulemaking, we must examine whether CMS providers electing to transmit emergency alerts should continue to permit their subscribers the capability to block such alerts and must submit a report with its recommendations to Congress.[20]

III. DISCUSSION

A. WARN Act Section 602(a) - Technical Requirements

6. Section 602(a) of the WARN Act requires that the Commission adopt technical standards, protocols, procedures, and other technical requirements based on the recommendations of the CMSAAC that will enable commercial mobile service alerting capability for CMS providers that voluntarily elect to transmit emergency alerts. The CMSAAC has recently completed its report,[21] and we seek comment generally on all the recommendations contained therein. Accordingly, we seek comment on the technical standards, protocols, procedures and other requirements that should be adopted to facilitate the transmission of emergency alerts by CMS providers.[22] We ask whether these recommendations, if adopted, would satisfy the requirements of the WARN Act and our goal of ensuring a robust, reliable and effective CMAS that could, in conjunction with other alerting systems and technologies, be used to transmit emergency alerts to all Americans, including those with special needs and those who do not speak English. We seek comment on whether the CMSAAC recommendations present an effective mechanism for alert originators at all levels of government to initiate emergency alerts and whether these recommendations could be implemented using a myriad of current and future technologies. Commenters should review all of the recommendations and comment, where appropriate, on the manner in which each of the recommendations contributes to an effective, unified system for the delivery of alerts over commercial mobile systems as envisioned by the WARN Act.[23] We further seek comment on any alternatives to the CMSAAC's recommendations. Comments that suggest alternatives to the CMSAAC's recommendations should address with sufficient detail how their proposed alternative would promote an effective CMAS as envisioned by the WARN Act.

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[19] *Id.*, section 602(b)(1).

[20] *Id.*, section 602(b)(1)(E).

[21] Under the CMSAAC's proposed end-to-end CMAS, a Federal government entity, the "Alert Aggregator," would receive, aggregate and authenticate alerts originated by authorized alert initiators. Under this proposal, the Federal government entity would also serve as an "Alert Gateway" which would formulate alerts based on CMPS profiles and then send them to CMS provider "Gateways" across a secure interface. The CMS provider Gateway would send the alerts to the participating CMS providers' infrastructure which, in turn, would send them to a subscriber's mobile device. The CMSAC recommendations include proposed technical requirements for virtually every component of a CMAS, including proposed government and CMS provider elements, alerting requirements geo-targeting requirements, and proposed standards for security reliability and performance.

[22] *See* CMSAAC recommendations at section 1.1.1.

[23] Commenters may use as the basis of their comments not only the Recommendations, but also the record on which the recommendations are based including the video records of the CMSAAC meetings and any materials submitted to the CMSAAC as public comments. These materials are available on the CMSAAC web site at http://www.fcc.gov/pshs/cmsaac/.

7. The CMSAAC's recommendations are detailed and highly technical in many places. As noted above, we have attached the CMSAAC's recommendations at Appendix B to this NPRM. Accordingly, rather than summarize each of the recommendations in this document, we provide descriptions of the major issues addressed by the CMSAAC's recommendations in order to facilitate a focused approach for public comment.

1. Available Transport Technologies

8. We seek comment on the availability of technologies now and in the future for the transmission of alerts over the CMAS. For example, to what extent do point-to-point and point-to-multipoint technologies provide viable solutions for a national CMAS? In this regard, we note that, the CMSAAC raised concerns regarding the viability of point-to-point solutions for a national alerting system.[24] We seek comment on these concerns. Specifically, can current generation point-to-point services such as short message service (SMS) be used to efficiently alert large populations of people within a short time frame? What impact would wireless 3G networks have on the SMS model?

9. Can point-to-multipoint technologies such as cell broadcast provide a viable transport solution for alerts transmitted over the CMAS? If current cell broadcasting does not provide a viable solution, what further development would be necessary to use cell broadcasting for the CMAS? Are there significant differences in how CDMA or GSM systems could employ cell broadcasting today and in the future? Are current mobile devices capable of receiving cell broadcast alerts?

10. We also seek comment, particularly from the EAS community, on whether a broadcast distribution model similar to that used to distribute EAS is consistent with the WARN Act and the CMAS. Could radio data systems like the Radio Broadcast Data System (RBDS), which do not require significant service provider infrastructure, nonetheless meet our goals for efficient delivery of alerts over the CMAS? What about emerging wireless broadcast technologies such as MediaFLO and DVB-H?[25] Comments should include a discussion concerning the broad range of devices intended to utilize the CMAS and potential impact on the subscriber service experience.

11. The CMAS as proposed by the CMSAAC likely will require a higher layer protocol that carries meta-data (administrative information) with the alert message, and can send authentication and authorization data to the alert's originator. We seek comment on whether this higher layer protocol is necessary for the CMAS. We also seek comment on how point-to-point, point-to-multi point and broadcast models could carry this information and provide the recommended authentication information. We further seek comment on any alternative methods for transmitting this data.

2. Federal Government's Role

12. What should be the Federal Government's role, if any, in managing the CMAS? The CMSAAC recommended that a Federal Government entity fulfill the roles of "Alert Aggregator" (*i.e.*, receive, accumulate and authenticate alerts originated by authorized alert initiators using the Common Alert Protocol (CAP))[26] and the "Alert Gateway" (*i.e.*, formulate an alert based on key fields in the CAP alert sent by the alert initiator and transmit the alert to corresponding gateways operated by each CMS provider). We seek comment on these recommendations. Is it necessary and desirable for a Federal government entity to assume these roles? If so, what Federal government entity would be appropriate?

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[24] We note that the CMSAAC recommended that these technologies not be considered as part of the CMAS. *See* CMSAAC recommendations at section 5.2.

[25] *See* CMSAAC recommendations at section 5.2. MediaFLO and DVB-H are technologies developed to transmit television signals and other data to portable devices such as cell phones and PDAs.

[26] CAP is defined and discussed in detail in paragraph 14, *infra*.

Commenters suggesting that a Federal government entity other than the Commission should fulfill these roles should also address how we could implement such a recommendation, taking into account our statutory authority and jurisdiction. We also seek comment on whether a private sector entity could fulfill these roles either independently or pursuant to delegated authority by a Federal government entity (*e.g.*, under a "Memorandum of Understanding" (MoU) arrangement, similar to the one used by the Justice Department regarding Amber Alerts).

13. The CMSAAC also recommended that all alerts, whether national or local, would be funneled through this aggregator. Is a centralized system best positioned to accomplish the goals of the CMAS as envisioned by the WARN Act? Would this run the risk of creating a single point of failure? Further, we seek comment on the government alerting system capability to a) support the aggregation of alerts from emergency agencies down to county and municipal levels, b) distribute alerts to a diverse range of potential alerting systems, and c) interact and determine the status of such connected alerting systems. What is the role of state emergency agencies in such a scheme? Should the aggregator concept be expanded to include state and county emergency agencies, such as state and county emergency operations centers (EOCs)? Could this be done in a manner that could track a state's role in any EAS activation? What equipment or security issues might be involved in expanding the scope of the system? What criteria should be established for determining the appropriateness of connecting an agency? What responsibilities should be attendant on connected agencies?

3. Use of the Common Alerting Protocol (CAP)

14. We seek comment on the CMSAAC's recommendation that the CMAS use CAP as the basic alerting protocol from the alert initiator to the alert gateway.[27] We also seek comment about the use of CAP as a general, system-wide CMAS interface.[28] Is use of CAP currently practicable in the context of CMAS? If CAP use were mandated, how quickly could such use be introduced by all CMAS participants? We note that we have specifically mandated use of CAP recently in our EAS *Second Report and Order*, where we concluded that use of CAP would provide specific benefits to the evolving EAS.[29] As noted above, one of the key benefits of CAP is that it ensures that diverse alert systems and technologies can participate within a common, transparent framework. Would CAP as utilized in the context of CMAS promote similar transparency? To the extent that commenters believe that the use of CAP as proposed would not be appropriate, they should discuss in detail any alternative protocols.

4. Alert Formatting, Classes, and Content Issues

15. We seek comment on whether we should adopt a character limit for alerts transmitted over the CMAS. We note that the CMSAAC recommended that, at least initially, the technical limit of any CMAS alert should be 90 characters of text.[30] Commenters should provide detailed technical explanation

[27] *See* CMSAAC recommendations at section 1.1.1.

[28] CAP is an open, interoperable standard, whose standardized alert message format – based on the World Wide Web Consortium's ("W3C's") Extensible Markup Language ("XML") – is a text-based format that facilitates data sharing across different distribution systems. The agreed-upon XML format of CAP can be accepted by a wide variety of devices or systems, and the format also permits links to voice, audio or data files, images, and multilingual translations of the alert, and to links providing further information. The CAP standard specifies what fields an alert message can contain and what information can be included in the particular fields. A CAP alert can provide various fields, including message type, scope, incident, event information, event certainty, sender, geographic scope, and the time when an alert becomes effective and expires. CAP also facilitates interoperability between devices, an attribute essential to establishing a CMAS that can operate over multiple service platforms. *See generally*, *EAS Second Report and Order*.

[29] *See EAS Second Report and Order and Further Notice of Proposed Rulemaking*, 22 FCC Rcd at 13288 (noting that CAP is mandated only in the event it is adopted by the Federal Emergency Management Agency (FEMA).)

[30] *See* CMSAAC recommendations at section 1.1.1.

in support of their positions and explain the relationship between "payload" and "displayable message size" as referenced in the CMSAAC's recommendations?[31]

16. We also seek comment on whether and to what extent emergency alerts should be classified. We specifically seek comment on the CMSAAC's recommendation that there be three classes of Commercial Mobile Alerts: Presidential-level, Imminent threat to life and property; and Child Abduction Emergency or "AMBER Alert" Service.[32] For example, the CMSAAC recommended that the term "Imminent threat to life and property" be defined as "alerts where the CAP severity equals Extreme or Severe, CAP urgency is Immediate or Expected, and CAP certainty is Observed or Likely." Is this proposed definition sufficient to set a proper threshold for the class of alerts that should be transmitted using the CMAS? We solicit examples of events meeting these criteria. Further, we seek comment on whether the choice of "imminent" represents a correct threshold? Does "imminent" apply to all types of threats, such as weather for example? Also, we note that CMS providers already support the transmission of Amber alerts to mobile devices using SMS technology. What is the added value of also including Amber Alerts in CMAS? What are the potential negatives if "too many" alerts are generated? What balance of alerts should be sought, and what factors should be considered in seeking such a balance?

17. We also seek comment on the content of CMAS alerts, including the CMSAAC's recommendation that all service providers support, at minimum, a capability for a text based common alerting message format support across multiple service platform technologies.[33]

18. The CMSAAC also recommended that the elements of a Commercial Mobile Alert Message (CMAM) should be (1) event type or category, (2) area affected, (3) recommended action, (4) expiration time with time zone, and (4) sending agency.[34] We seek comment on these choices. Are they consistent with accepted industry practices for emergency alerts? Are they consistent with the evolving concept of CAP-formatted messages? The CMSAAC anticipated that the elements of a CMA would evolve as experience is gained by alert initiators. We seek comment on this assumption. How might CMAM elements evolve over time?

19. The CMSAAC also recommended a method for the automatic generation of alert text by extracting information from CAP fields, SAME codes and free-form text, but proposed that the CMAS allow the generation of free text in Amber Alerts and Presidential alerts.[35] . We seek comment on this recommendation. We also seek comment on whether Presidential and Amber alerts can be structured to use automatic text.

20. We also seek comment on the CMSAAC's recommended set of standardized alerting messages. Should the alert message include telephone numbers, URLs or other response and contact information in certain Commercial mobile alerts?[36] Is there public safety value to the inclusion of such information in a Commercial mobile alert? What, if any, would be the impact on the network? In prior emergencies, mobile traffic increased to the point of network congestion. What would be the impact on

[31] *See id.* at section 1.1.5.

[32] *See id.* at section 5.1.

[33] *See id.* at section 5.1.

[34] *See id.* at section 5.3.1.

[35] *See id.*, at section 5.3.2.

[36] We note there was considerable discussion of this issue during the October 3 CMSAAC meeting. See Transcript of October 3, 2007 Meeting, at pp. 121-133, available at http://www.fcc.gov/pshs/cmsaac/cmsaac-meetings.html (last viewed December 12, 2007).

network congestion if subscribers were directed to a specific number (such as a "311" number in New York City) or URL?

5. Geographically Targeted Commercial Mobile Alerts

21. We seek comment on what level of precision we should require for the geographical targeting (geo-targeting) of CMAS alerts. In section 5.4 of its recommendations, the CMSAAC acknowledged "that it is the goal of the CMAS for CMSPs to be able to deliver geo-targeted alerts to the area specified by the Alert Initiator."[37] However, the CMSAAC recommended that, due to current limited capabilities on the part of CMS providers, "an alert that is specified by a geocode, circle or polygon . . . will be transmitted to an area not larger than the CMSP's approximation of coverage for the county or counties with which that geocode, circle or polygon intersects."[38] We seek comment on this recommendation, including the assertion that technical limitations currently preclude dynamic geo-targeting at a level more granular than the county.[39]

22. The CMSAAC recognized that a "CMS provider may elect to target smaller areas" and recommended "that certain urban areas with populations exceeding 1,000,000 inhabitants or with other specialized alerting needs be identified for priority consideration regarding implementation of more precise geo-targeting."[40] The CMSAAC recommended that a process be initiated by the Alert Gateway operator and the CMS providers to identify such priority locations by August, 2008, and recognized "the desire to move forward with this process on a small number of areas with particularly urgent alerting needs as soon as possible."[41] We seek comment on these and the other recommendations raised in section 5.4 of the CMSAAC's recommendations.

6. CMAS for Individuals with Disabilities and the Elderly

23. We seek comment on what, if any, technical or accessibility requirements we should adopt to ensure that commercial mobile alerts can be received by people with disabilities and the elderly.[42] The

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[37] CMSAAC recommendations at section 5.4.

[38] *Id.* at section 5.4.1.

[39] *See id.* at section 5.4 ("The CMSAAC further recognizes that CMSPs currently have limited capability to deliver geo-targeted alerts."). *See also* Presentation of Brian Daly, Leader of CMSAAC's Communications Technology Group, CMSAAC Transcript of September 19, 2007 Meeting at pp 28 ("It's really the issue with dynamically matching to RF coverage areas because if you take a map and draw a polygon or a circle, it's challenging to figure out what cell sites are covering the area within that circle or polygon on a real-time basis, and that's where the challenge comes in. . . .The technology needs to be evaluated to see what can be done in order to get down to those geographic areas.").

[40] CMSAAC recommendations at section 5.4.1.a. We note that during a conference call on the topic of geo-targeting subsequent to the September 19, 2007 CMSAAC meeting, the City of New York's representative expressed concern about county-based geo-targeting, particularly as it relates to the City of New York's need to receive alerts at a more granular level.

[41] CMSAAC recommendation at section 5.4.1.a.

[42] *See* SAFE Port Act, 120 Stat. 1936-43, WARN Act § 603(a). Beyond the WARN Act, there are numerous Federal statutes and policies directed toward achieving accessibility for persons with disabilities. *See, e.g.*, Americans With Disabilities Act of 1990 (ADA), Pub. L. No. 101-336, 104 Stat. 327, § 401 (1990) (Title II of ADA requires accessibility to state and local government programs and communications); The Rehabilitation Act of 1973, Pub. L. No. 93-112, 87 Stat. 394, 29 U.S.C. § 794, as amended (section 504 of the Rehabilitation Act requires accessibility of Federal government programs); 47 U.S.C. § 255 (Communications Act accessibility requirements for telecommunications services and equipment where readily achievable); Exec. Order No. 13,347, 69 Fed. Reg. 44,573 (July 22, 2004) (establishing policies to ensure that the Federal Government appropriately supports safety and security for individuals with disabilities in situations involving disasters, and that Federal Government agencies consider the unique needs of employees with disabilities, and other individuals with disabilities served by such

(continued....)

CMSAAC submitted recommendations addressing the needs of users, including individuals with disabilities and the elderly, and we seek comment on these recommendations.[43] Among the major recommendations by the CMSAAC is a proposal that the CMAS support a common audio attention signal and a common vibrating cadence to be used solely for CMAS alerts. We seek comment on this recommendation. Does the CMAS need to require these attention signals for all users?[44] Further, the CMSAAC recommended that the alert initiator use clear and simple language whenever possible, with minimal use of abbreviations and that the mobile device be able to provide an easy way to allow the user to recall the message for review. We seek comment on these recommendations and other issues that parties wish to raise concerning users with special needs. The CMSAAC also recommended that legacy mobile devices not be required to support CMAS, notwithstanding that much of the special needs services will depend on features in the mobile device. We seek comment on this recommendation. Is there a way, perhaps through software upgrades, for present mobile devices to support CMAS? Could, and if so should, upgrades be performed over the air?

7. Transmission of CMAS Alerts in Languages Other than English

24. We seek comment on the technical feasibility of providing commercial mobile alerts in languages in addition to English. The CMSAAC suggested that there may be fundamental technical challenges to implementing parallel alerts in languages in addition to English. We seek comment on this view. We recognize the significant public safety interest in delivering alerts to speakers of languages other than English and strongly affirmed this principle in our May 2007 EAS *Second Report and Order*.[45] CMSAAC also asserted that multilingual (and geo-targeted) alerting would raise latency (alert delay) concerns.[46] How would requirements for multi-language alerts affect the generation and distribution of messages on a local, state and national level?

B. WARN Act Section 602(b) - CMAS Election Rulemaking

25. Section 602(b) concerns commercial mobile service licensees' election to transmit or not transmit emergency alerts to subscribers. It requires the Commission to establish procedures by which a CMS provider will notify new and existing subscribers of its election and inform the Commission of its election and the method of its transmittal of alerts, and to establish procedures for a CMS provider to withdraw its election and afford existing subscribers to discontinue service upon notification of that withdrawal.

1. Notice at Point of Sale

26. Under Section 602(b)(1), "within 120 days after the date on which [the Commission] adopts relevant technical standards and other technical requirements pursuant to subsection (a), the Commission shall complete a proceeding to allow any licensee providing commercial mobile service to transmit emergency alerts to subscribers to, or users of, the commercial mobile service provided by such licensee."

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agencies, State, local, and tribal governments, and private organizations, in emergency preparedness planning); Exec. Order No. 13,407, 71 Fed. Reg. 36,975 (June 26, 2006) (directing the Secretary of Homeland Security to include in the public alert and warning system the capability to alert and warn all Americans, including those with disabilities and those without an understanding of the English language).

[43] *See, e.g.*, CMSAAC recommendations at sections 5.5.2.1, 5.5.2.3.

[44] *See* Federal Emergency Management Agency (FEMA), *Accommodating Individuals with Disabilities in the Provision of Disaster Mass Care, Housing, and Human Services*, Reference Guide, *at* http://www.fema.gov/oer/reference/.

[45] *See EAS Second Report and Order and Further Notice of Proposed Rulemaking*, 22 FCC Rcd 13275, 13306.

[46] *See* CMSAAC recommendations at section 1.1.8.

The Commission shall "require any CMS licensee providing commercial mobile service that elects, in whole or in part, under paragraph (2) [Election] not to transmit emergency alerts to provide clear and conspicuous notice at the point of sale of any devices with which its commercial mobile service is included, that it will not transmit such alerts via the service it provides for the device."[47]

27. CMSAAC recommended that CMS providers should have the discretion to determine how to provide this notice. Thus, as an initial matter, we seek comment on this recommendation. Alternatively, should we specify the methods by which a service provider should notify prospective and existing subscribers that it has elected not to offer emergency alerts? The Commission has established procedures in other proceedings concerning the provision of notice to subscribers and the display of information in a service provider's places of business.[48] For purposes of this proceeding, we also would define any point of sale as any means - retail, telephone, or Internet-based - by which a service provider facilitates and promotes its services for sale to the public. We include third party, separately branded resellers as meeting the criteria for a point of sale. We seek comment on this choice.[49] Are there others that should be included?

28. In these commercial environments, what constitutes clear and conspicuous notice at the point of sale? Does a general notice in the form of a statement attesting to the election not to provide emergency alerts satisfy the statutory requirement? Does the language of the statute require the posting of a general notice in clear view of subscribers in the service provider's stores, kiosks, third party reseller locations, web site (proprietary or third party), and any other venue through which the service provider's devices and services are marketed or sold? What form would that general notice take; for example, should service providers include a placard of a particular size at the point of sale? Is notification in the service provider's service subscription terms and conditions sufficient notice to subscribers? Does the clear and conspicuous standard require that each device sold by the service provider include a notice that emergency alerts are not included as a feature of the device or the service provider's service? Does a service provider meet the condition of clear and conspicuous notification if it requires subscribers to read and indicate an understanding that the service provider does not offer emergency alerts? The CMSAAC has drafted recommended text by which CMS providers may indicate that they will not be electing to participate in the CMAS.[50] We seek comment on this text. Does it satisfy the statute?

29. The CMSAAC suggested that, because the WARN Act does not require any disclosure for a CMS provider that participates in the CMAS, no disclosure is required. We seek comment on this assertion. If a CMS provider only offers CMAS within part of its territory or only on certain mobile devices, where and how should the disclosure obligations apply?

2. Notifications to Existing Subscribers

30. With respect to existing subscribers, under section 602(b)(1)(C), the Commission shall "require any licensee providing commercial mobile service that elects under paragraph (2) not to transmit

[47] WARN Act, section 602(b)(1)(B).

[48] *See, e.g.*, 47 C.F.R. § 63.71 (requiring any domestic service provider that seeks to discontinue, reduce or impair service to notify all affected subscribers of the planned discontinuance, reduction, or impairment of service, including a notice in writing to each affected subscriber with FCC mandated text); 47 C.F.R. § 63.90 (requiring a service provider discontinuing service to post a public notice of 20 inches by 24 inches in a conspicuous place and containing all pertinent information related to the discontinuance).

[49] We note that the Commission has extended certain obligations to resellers. For example, the Commission requires resellers of commercial mobile services to ensure that all mobile devices or other devices offered to their subscribers for voice communications are capable of transmitting enhanced 911 information to the appropriate PSAP. *See* 47 C.F.R. § 20.18(m).

[50] *See* CMSAAC recommendations at section 3.4.

emergency alerts to notify its existing subscribers of its election."[51] Should CMS providers be granted the discretion to determine how to provide notice of non-election? If not, we seek comment on how such notification should be made, including the methods and duration of a service provider's notification to *existing subscribers of its election*. Commercial mobile service providers regularly communicate service and equipment offers and upgrades to existing subscribers through direct mailings and through notification on paper bills. Do existing marketing and billing practices allow service providers to meet the requirement to notify existing subscribers of the service provider's election? Are these types of existing communication methods sufficient to reach the service provider's entire existing subscriber base? Commenters should take into account the fact that some service providers are offering their subscribers electronic billing and do not send a paper bill, and some service providers have opt-out programs allowing their subscribers to decline receiving any direct mailings from the service provider. Should service providers be required to notify existing subscribers by sending them a separate notice of a change in the terms and conditions of their service?[52] How should service providers notify pre-paid customers? Should service providers demonstrate to the Commission that they have met this requirement and, if so, how should they do so?[53] Should service providers be required to maintain a record of subscribers who have acknowledged receipt of the service provider's notification?

3. Related Filings and Other Requirements

31. Sections 602(b)(2)(A), (B), (D) and (E) establish certain requirements for service providers electing to provide or not to provide emergency alerts to subscribers. As specified in the timelines of the WARN Act, the election process must be complete in September 2008. In several instances, the statute requires service providers to submit notifications to the Commission indicating its election, non-election, or its withdrawal from providing emergency alerts. Section 602(b)(2)(A) requires that, "within 30 days after the Commission issues its order under [section 602(b)], each licensee providing commercial mobile service shall file an election with the Commission with respect to whether or not it intends to transmit emergency alerts."[54] Similarly, under section 602(b)(2)(B), a service provider that elects to transmit emergency alerts must "notify the Commission of its election" and "agree to transmit such alerts in a manner consistent with the technical standards, protocols, procedures, and other technical requirements implemented by the Commission."[55] Further, section 602(b)(2)(D) requires the Commission to establish procedures relating to withdrawal of an election and the filing of late election notices with the Commission.[56] Under section 602(b)(2)(D)(i), "the Commission shall establish a procedure for a commercial mobile service licensee that has elected to transmit emergency alerts to withdraw its election without regulatory penalty or forfeiture upon advance written notification of the withdrawal to its affected subscribers."[57] Finally, section 602(b)(2)(D)(ii) requires "the Commission to establish a procedure for a commercial mobile service licensee to elect to transmit emergency alerts at a date later than provided in

[51] WARN Act, section 602(b)(1)(C).

[52] For example, the Commission requires interconnected VoIP service providers to advise every subscriber, both new and existing, prominently and in plain language, of the circumstances under which E911 service may not be available through the interconnected VoIP service or may be in some way limited by comparison to traditional E911 service. *See* 47 C.F.R. § 9.5(e)(1).

[53] *See, e.g.*, 47 C.F.R. § 9.5(e)(2) (requiring interconnected VoIP service providers to obtain and keep a record of affirmative acknowledgment by every subscriber, both new and existing, of having received and understood the advisory on the limitations and availability of E911 service over VoIP platforms).

[54] WARN Act, section 602(b)(2)(A).

[55] *Id.*, section 602(b)(2)(B)(i-ii).

[56] *Id.*, section 602(b)(2)(D).

[57] *Id.*, section 602(b)(2)(D)(i).

subparagraph (A)."[58] The CMSAAC proposed a timeline for election based on its interpretation of the WARN Act.[59] We seek comment on this interpretation and timeline. Commenters with a different interpretation should provide detailed alternatives.

32. With respect to all these filing requirements, we request comment on the most efficient method for accepting, monitoring, and maintaining service provider election and withdrawal information. We anticipate that this information will be of interest to the public and will serve to aid consumers in their decision regarding which service provider can best meet their expectations for delivering emergency alerts. Should the Commission require electronic filing of the submission? With respect to the initial filing by the service provider of its intention to provide or not to provide emergency alerts, what should the CMS provider provide in its report to the Commission if it indicates its intention to provide emergency alerts? For example, we seek comment on the CMSAAC's recommendations that, at a minimum, a CMS provider explicitly commits to support the development and deployment of technology for the following: the "C" reference point, the CMS provider Gateway, the CMS provider infrastructure, and the mobile device with CMAS functionality. The CMSAAC also suggests that the required technology may not be in place for some time. Accordingly, should electing CMS providers be able to specify when they will be able to offer mobile alerting?

33. With respect to notification that the service provider elects to provide emergency alerts, we seek comment on the manner by which service providers shall notify the Commission and attest to their adoption of the Commission's standards, protocols, procedures and other technical requirements. Should the Commission require electronic filing of the submission? What should the CMS provider submit in its report to the Commission if it indicates its intention to provide emergency alerts?[60]

34. The statute allows service providers to withdraw from their election to provide emergency alerts, upon notification to the Commission and to subscribers. We seek comment on the proper mechanism for service providers to file this withdrawal with the Commission. We contemplate two scenarios: first, the service provider has elected to provide emergency alerts, but does not build the infrastructure, or second, the service provider elects to provide emergency alerts, does so to all or some portion of its coverage area, but then chooses to no longer provide alerts and elects to discontinue the service. With respect to the second scenario, how much advance service provider notification to subscribers should the Commission require prior to the service provider's withdrawal of the service? What methods should service providers use to notify all existing subscribers at the service provider's various points of sale? Should the Commission impose the same set of requirements considered under section 602(b)(1)(C) regarding notification to existing subscribers and potential subscribers that a service provider has elected not to provide emergency alerts? Were the Commission to allow some cost recovery mechanism,[61] what changes in that process should be required when a service provider ceases to provide emergency alerts? Should service providers be required to demonstrate or certify that they are no longer passing through costs to implement emergency alerts to subscribers?[62]

35. Section 602(b)(2)(D)(iii) requires the Commission to establish a procedure "under which a subscriber may terminate a subscription to service provided by a commercial mobile service licensee that withdraws its election without penalty or early termination fee."[63] We seek comment on the procedures

[58] *Id.*, section 602(b)(2)(D)(ii).

[59] *See* CMSAAC recommendations at section 12.2.

[60] *See, e.g.*, 47 C.F.R. § 9.5(e)(4) (requiring all interconnected VoIP providers to submit a letter to the Commission detailing their compliance with E911 regulations).

[61] See *infra*, ¶ 38.

[62] *See infra*, ¶ 39.

[63] WARN Act, section 602(b)(2)(D)(iii).

necessary to allow a subscriber to terminate service upon a service provider's withdrawal of its election to provide emergency alerts. In what manner should subscribers and potential subscribers be informed of their right to discontinue service? Is notification in the terms and conditions of service sufficient to apprise subscribers of their right to discontinue service without penalty or termination fee? Should the Commission prescribe a specific procedure for subscribers or should service providers submit to the Commission a description of their procedure for informing subscribers of their right to terminate service? What should such procedures be?

36. Section 602(b)(2)(E) states that "any commercial mobile service licensee electing to transmit emergency alerts may offer subscribers the capability of preventing the subscriber's device from receiving such alerts, or classes of such alerts, other than an alert issued by the President."[64] The CMSAAC recommended that the CMS providers should offer their subscribers a simple opt-out process.[65] With the exception of presidential messages, which are always transmitted, the CMSAAC recommended that the process should allow the choice to opt out of "all messages," "all severe messages," and AMBER Alerts.[66] The CMSAAC suggested that, because of differences in the way CMS providers and device manufacturers provision their menus and user interfaces, CMS providers and device manufacturers should have flexibility on how to present the opt-out choices to subscribers. We seek comment on the recommendations of the CMSAAC with respect to three choices of message types that a subscriber should be allowed to choose to opt out of receiving. We also seek comment on the CMSAAC recommendation that CMS providers and device manufacturers should have flexibility or whether the Commission should establish baseline criteria for informing subscribers of this capability and if any uniform standards for conveying that information to subscribers is required. We understand that current and future devices have different user interfaces and menu structures for enabling and disabling device features. To what extent is a uniform methodology for disabling this feature necessary? Are there more classes of alerts that should be considered?

37. Section 602(b)(2)(E) also provides that the Commission shall, within two years of the adoption of the technical requirements, "examine the issue of whether a [CMS provider] should continue to be permitted to offer its subscribers an opt-out capability."[67] We seek comment on the appropriate mechanism for doing so. Further, we seek comment on whether the Commission can expand the scope of this inquiry to other questions concerning the development of the CMAS. We note that the CMSAAC recommended this result because the CMAS is a new and untested system and will need periodic review as it is deployed.[68] We seek comment on this recommendation.

38. Section 602(b)(2)(C) states "[a] commercial mobile service licensee that elects to transmit emergency alerts may not impose a separate or additional charge for such transmission or capability."[69]

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[64] *Id.*, section 602(b)(2)(E).

[65] *See* CMSAAC Recommendations at section 5.5.3.

[66] *Id.* Under the CMSAAC's recommendation, when the subscriber chooses to opt out of "all messages," only "presidential" messages will be received. *Id.* at p 57, n.13. When the subscriber chooses to opt out of "all severe messages," only "extreme messages, AMBER Alerts and presidential messages will still be received." *Id.* at p. 57, n.14. "Extreme" messages correspond to events of near-catastrophic proportions. *See* Transcript of July 18, 2007 Meeting, at pp. 37-38, available at http://www.fcc.gov/pshs/cmsaac/cmsaac-meetings.html (last viewed December 12, 2007). In developing the recommendation, the Committee believed that it was important that subscribers who opt out of "severe" alerts should still be able to receive these "extreme" alerts. *See id.* at p. 38. Finally, when the subscriber chooses to opt out of AMBER alerts, all alerts aside from AMBER alerts will still be received. *Id.* at p. 57, n.15.

[67] WARN Act, section 602(b)(2)(E).

[68] *See* CMSAAC recommendations at section 5.

[69] WARN Act, section 602(b)(2)(C).

Does this provision completely preclude a participating service provider's ability to recover costs associated with the provision of alerts?[70] *What about CMAS-related services and technologies that are* not used to deliver CMAS? Should the section's reference to "transmission or capability" be read narrowly? For example, much of the alert technology will reside in the subscriber's mobile device. Can the CMS providers recover CMAS-related developmental costs from the subscriber through mobile device charges based on a determination that mobile devices lie outside the "transmission or capability" language of the section?

C. WARN Act Section 602(c) - Digital Television Transmission Towers Retransmission Capability Rulemaking

39. Section 602(c) of the WARN Act requires that within 90 days of adoption of the technical requirements, we must complete a proceeding to require NCE and public broadcast station licensees and permittees to install equipment and technologies on, or as part of, any broadcast television digital signal transmitter to enable the distribution of geographically targeted alerts by CMS providers that have elected to transmit emergency alerts. We seek comment on this requirement. Specifically, we seek comment on whether the system described in this section is identical to the "Datacasting" system[71] that the Association of Public Television Stations (APTS) and FEMA are deploying as the backbone of the Digital Emergency Alert System (DEAS)? If so, would it be consistent with the WARN Act simply to implement the DEAS in a manner that complies with section 602(c) of the WARN Act?

40. How will this DTV-based system interface with the CMAS? How will this requirement regarding the geo-targeting of CMAMs fits into centrally administered CMAS as envisioned by the CMSAAC. How would the DTV-based system implement the message formats defined by the "C" interface? We also seek comment on the scope of this section. Although the caption of section 602(c) refers to digital television transmissions, it mandates that the Commission impose any equipment requirements to licensees and permittees of NCE and public broadcast stations as those terms are defined under Section 397(6) of the Communications Act. That provision references both radio and television broadcast stations. We seek comment on this definition as it relates to section 602(c) of the WARN Act. Is it a fair reading of the language to conclude that this section applies only to licensees and permittees of NCE and public broadcast television stations?

D. WARN Act Section 602(f) - Testing

41. Section 602(f) of the WARN Act provides that the Commission shall "require by regulation technical testing for commercial mobile service providers that elect to transmit emergency alerts and for the devices and equipment used by such providers for transmitting such alerts." We seek comment on what type of testing regime the Commission should require. We note that the CMSAAC proposed that in order to assure the reliability and performance of this new system, certain procedures for logging CMAS alerts at the Alert Gateway and for testing the system at the Alert Gateway and on and end-to-end basis should be implemented.[72] We seek comment on these proposed procedures. Do they satisfy the

[70] We note that during the CMSAAC's discussion of this issue, some members stated that it was anticipated that mobile devices may incur additional development and costs which could be passed on to the subscriber. *See* CMSAAC, Transcript of October 3, 2007 Meeting, at pp. 33- 62, available at http://www.fcc.gov/pshs/cmsaac/cmsaac-meetings.html (last viewed December 12, 2007).

[71] Datacasting is a one-way broadcast service where data is encoded and transmitted over-the-air within a public television station's digital signal. The transmission is then decoded by an inexpensive receiver. Through datacasting, digital public television stations can wirelessly distribute streamed video and data files to computers and computer networks – with a capacity equal to thirteen T-1 data lines. *Definition of Datacasting*, The Association of Public Television Stations (APTS), http://www.apts.org/PTVissues/digitalTV/datacasting.cfm.

[72] *See* CMSAAC recommendations at section 9.5.

requirements of section 602(f) of the WARN Act? We particularly seek comment on whether there should be some form of testing of the CMAS that sends test messages to the mobile device and the subscriber.[73] Do the EAS testing rules offer a model for such tests? In those rules, internal systems test are combined with tests that are heard (or in some cases seen) by the public. Should some similar form of test that alerts the public be required in the CMAS? Should the testing process be invisible to the subscriber or should all subscribers participate in certain tests? If testing involves subscribers, how should subscribers be made aware of such tests?

E. Overall Relationship of CMAS to EAS and Development of a National Alert System by FEMA

42. As noted earlier, the Commission originally intended to consider in its rulemaking in EB Docket No. 04-296 whether wireless mobile service providers should be included in the EAS.[74] Notwithstanding various operational differences between the EAS and those requirements mandated by the WARN Act (chiefly, the voluntary participation model of the latter), both alert systems will provide important emergency information to American citizens. As such, both systems would seem to qualify for inclusion in the "national alert system," to be developed and coordinated by FEMA, as envisaged by President Bush's June 2006 Executive Order.[75] We seek comment about how the CMSAAC's proposals for a CMAS relate to the directives contained in that Executive Order. We also seek comment about the overall compatibility of the CMAS with the EAS (*i.e.*, in addition to the specific questions that have been raised earlier in this *NPRM*). Should we mandate such compatibility? What steps would we need to take to ensure such compatibility? As related above, the CMSAAC has proposed use of CAP1.1 as the standard CMAS alert interface, and the Commission has mandated that CAP1.1 shall also be the standard interface for the evolving EAS (if it is adopted by FEMA). Would adoption and incorporation of CAP1.1 per the CMAS in and of itself ensure that it's compatible with a CAP-formatted EAS alert delivery system? If not, what modifications to the CMSAAC's proposals would be necessary to ensure such compatibility with the future National Alert System required under EO 13407? Finally, we also seek comment on what additional statutory authority, independent of the WARN Act, we have to implement a mobile alerting system.

IV. PROCEDURAL MATTERS

43. Comments and Reply Comments. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. All filings should refer to PSHSB Docket No. 07-287. Comments may be filed using: (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 13 FCC Rcd 11322, 11326 (1998). For additional information on this proceeding, please contact Jeffrey Goldthorp ((202) 418-1096) or Tom Beers((202) 418-0952).

44. Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://www.fcc.gov/cgb/ecfs/ or the Federal eRulemaking Portal: http://www.regulations.gov. Filers should follow the instructions provided on the website for submitting comments.

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[73] We note that there was discussion of this issue during the October 3 CMSAAC meeting. See Transcript of October 3, 2007 Meeting, at pp. 155-159, available at http://www.fcc.gov/pshs/cmsaac/cmsaac-meetings.html (last viewed December 12, 2007).

[74] *See EAS Second Report and Order and Further Notice of Proposed Rulemaking*, 22 FCC Rcd 13275, 13298-99.

[75] Public Alert and Warning System, Exec. Order No. 13407, 71 Fed. Reg. 36975 (June 26, 2006).

45. For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.

46. Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

47. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

48. The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE., Suite 110, Washington, DC 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.

49. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

50. U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street, SW, Washington DC 20554.

51. Comments and reply comments must include a short and concise summary of the substantive discussion and questions raised in the NPRM. We further direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. We strongly encourage that parties track the organization set forth in this NPRM in order to facilitate our internal review process. Comments and reply comments must otherwise comply with section 1.48 and all other applicable sections of the Commission's rules.[76]

52. People with Disabilities: To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

53. Ex Parte Rules. These matters shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules.[77] Persons making oral ex parte presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required.[78] Other requirements pertaining to oral and written presentations are set forth in section 1.1206(b) of the Commission's rules.[79]

[76] See 47 C.F.R. § 1.48.

[77] 47 C.F.R. §§ 1.1200-1.1216.

[78] 47 C.F.R. § 1.1206(b)(2).

[79] 47 C.F.R. § 1.1206(b).

54. Initial Regulatory Flexibility Analysis. As required by the Regulatory Flexibility Act of 1980, as amended, *see* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis ("IRFA") for this NPRM, of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this NPRM. The IRFA is in Appendix A. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the NPRM. The Commission will send a copy of the NPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.[80] In addition, the NPRM and IRFA (or summaries thereof) will be published in the Federal Register.[81]

55. Initial Paperwork Reduction Act of 1995 Analysis. This document may contain proposed new or modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we seek specific comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees.

V. ORDERING CLAUSE

56. IT IS ORDERED, that pursuant to sections 1, 4(i) and (o), 201, 303(r), 403, and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (o), 201, 303(r), 403, and 606, as well as by sections 602(a),(b),(c), (f), 603, 604 and 606 of the WARN Act, this Notice of Proposed Rulemaking IS hereby ADOPTED.

57. IT IS FURTHER ORDERED that the Commission's Consumer and Government Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Council for Advocacy of the Small Business Administration.

58. IT IS FURTHER ORDERED that the Commission's Public Safety and Homeland Security Bureau, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the National Institute for Standards and Technology (NIST).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

[80] *See* 5 U.S.C. § 603(a).

[81] *Id.*

APPENDIX A

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this Notice of Proposed Rulemaking (NPRM). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the NPRM provided in Section IV of the item. The Commission will send a copy of the NPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[2] In addition, the NPRM and IRFA (or summaries thereof) will be published in the Federal Register.[3]

A. Need for, and Objectives of, the Proposed Rules

2. With the NPRM, the Federal Communications Commission (Commission), as required by the Warning Alert and Response Network (WARN) Act,[4] initiates a comprehensive rulemaking to establish a Commercial Mobile Alert System (CMAS), under which Commercial Mobile Service providers (alternatively, "CMS providers") may voluntarily elect to transmit emergency alerts to the public. This proceeding represents our next step in compliance with the Warning Alert and Response Network (WARN) Act, that the Commission enable commercial mobile service alerting capability for CMS providers that elect to transmit emergency alerts.

3. Section 602 of the WARN Act requires the Commission to adopt: (1) system critical protocols and technical requirements for the CMAS; (2) a mechanism under which CMS providers[5] may elect to participate in the CMAS and disclose to their subscribers whether or not they would participate; (3) rules under which licensees and permittees of noncommercial educational (NCE) broadcast stations or public broadcast stations install necessary equipment and technologies on, or as part of, any broadcast television digital signal transmitter to enable the distribution of geographically targeted alerts by CMS providers that have elected to participate in the CMAS; and (4) technical testing requirements for CMS providers that elect to transmit emergency alerts and for the devices and equipment used by such providers for transmitting such alerts. In this NPRM we seek comment on questions pertaining to all of these statutory requirements.[6] We also seek comment about how the issues discussed in the NPRM relate to the Commission's activities in connection with the Emergency Alert System (EAS).[7]

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[1] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[2] *See* 5 U.S.C. § 603(a).

[3] *Id.*

[4] *See* NPRM, note 1, *supra*.

[5] *See* NPRM, note 4, *supra*, for definition of "commercial mobile service" under the WARN Act.

[6] As discussed in the NPRM, the WARN Act imposes different deadlines on the rulemakings required by sections 602(a), (b), and (c). We intend to complete these rulemakings through one or more orders on or before the relevant deadlines.

[7] *See* NPRM, note 6, *supra*.

B. Legal Basis

4. Authority for the actions proposed in the NPRM may be found in sections 1, 4(i) and (o), 201, 303(r), 403, and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (o), 201, 303(r), 403, and 606, as well as by sections 602(a),(b),(c), (f), 603, 604 and 606 of the WARN Act.

C. Description and Estimate of the Number of Small Entities to Which Rules Will Apply

5. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein.[8] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[9] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[10] A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[11]

6. Small Businesses. Nationwide, there are a total of approximately 22.4 million small businesses, according to SBA data.

7. Small Organizations. Nationwide, there are approximately 1.6 million small organizations.

8. Governmental Entities. The term "small governmental jurisdiction" is defined as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand." As of 2002, there were approximately 87,525 governmental jurisdictions in the United States. This number includes 38,967 county governments, municipalities, and townships, of which 37,373 (approximately 95.9%) have populations of fewer than 50,000, and of which 1,594 have populations of 50,000 or more. Thus, we estimate the number of small governmental jurisdictions overall to be 85,931 or fewer.

9. Wireless Telecommunications Carriers (except Satellite). Since 2007, the SBA has recognized wireless firms within this new, broad, economic census category.[12] Prior to that time, the SBA had developed a small business size standard for wireless firms within the now-superseded census categories of "Paging" and "Cellular and Other Wireless Telecommunications."[13] Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data. For the first category of Paging, data for 2002

[8] 5 U.S.C. § 603(b).

[9] 5 U.S.C. § 601(6).

[10] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

[11] 15 U.S.C. § 632.

[12] 13 C.F.R. § 121.201, NAICS code 517210.

[13] 13 C.F.R. § 121.201, NAICS codes 517211, 517212.

show that there were 807 firms that operated for the entire year.[14] Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.[15] For the second category of Cellular and Other Wireless Telecommunications, data for 2002 show that there were 1,397 firms that operated for the entire year.[16] Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.[17] Thus, using the prior categories and the available data, we estimate that the majority of wireless firms can be considered small.

10. Cellular Service. As noted, the SBA has developed a small business size standard for small businesses in the category "Wireless Telecommunications Carriers (except satellite)."[18] Under that SBA category, a business is small if it has 1,500 or fewer employees.[19] Since 2007, the SBA has recognized wireless firms within this new, broad, economic census category.[20] Prior to that time, the SBA had developed a small business size standard for wireless firms within the now-superseded census categories of "Paging" and "Cellular and Other Wireless Telecommunications."[21] Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data.

11. For the first category of Paging, data for 2002 show that there were 807 firms that operated for the entire year.[22] Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.[23] For the second category of Cellular and Other Wireless Telecommunications, data for 2002 show that there were 1,397 firms that operated for the entire year.[24] Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.[25] Thus, using the prior categories and the available data, we estimate that the majority of wireless firms can be considered small.

12. Auctions. In addition, we note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small

[14] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization," Table 5, NAICS code 517211 (issued Nov. 2005).

[15] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[16] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization," Table 5, NAICS code 517212 (issued Nov. 2005).

[17] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[18] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517210.

[19] *Id.*

[20] 13 C.F.R. § 121.201, NAICS code 517210.

[21] 13 C.F.R. § 121.201, NAICS codes 517211, 517212.

[22] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization," Table 5, NAICS code 517211 (issued Nov. 2005).

[23] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[24] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization," Table 5, NAICS code 517212 (issued Nov. 2005).

[25] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

13. Broadband Personal Communications Service. The broadband Personal Communications Service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission has created a small business size standard for Blocks C and F as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[26] For Block F, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[27] These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.[28] No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the C Block auctions. A total of 93 "small" and "very small" business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.[29] On March 23, 1999, the Commission reauctioned 155 C, D, E, and F Block licenses; there were 113 small business winning bidders.[30] On January 26, 2001, the Commission completed the auction of 422 C and F PCS licenses in Auction 35.[31] Of the 35 winning bidders in this auction, 29 qualified as "small" or "very small" businesses. Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant.

14. Narrowband Personal Communications Service. The Commission held an auction for Narrowband Personal Communications Service (PCS) licenses that commenced on July 25, 1994, and closed on July 29, 1994. A second commenced on October 26, 1994 and closed on November 8, 1994. For purposes of the first two Narrowband PCS auctions, "small businesses" were entities with average gross revenues for the prior three calendar years of $40 million or less.[32] Through these auctions, the Commission awarded a total of forty-one licenses, 11 of which were obtained by four small businesses.[33] To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the *Narrowband PCS Second Report and Order*.[34] A "small

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[26] *See* Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824, 7850-7852 ¶¶ 57-60 (1996); *see also* 47 C.F.R. § 24.720(b).

[27] *See* Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824, 7852 ¶ 60.

[28] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

[29] FCC News, "Broadband PCS, D, E and F Block Auction Closes," No. 71744 (rel. January 14, 1997).

[30] *See* "C, D, E, and F Block Broadband PCS Auction Closes," *Public Notice*, 14 FCC Rcd 6688 (WTB 1999).

[31] *See* "C and F Block Broadband PCS Auction Closes; Winning Bidders Announced," *Public Notice*, 16 FCC Rcd 2339 (2001).

[32] Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS, *Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd 175, 196 ¶ 46 (1994).

[33] *See* "Announcing the High Bidders in the Auction of ten Nationwide Narrowband PCS Licenses, Winning Bids Total $617,006,674," *Public Notice*, PNWL 94-004 (rel. Aug. 2, 1994); "Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total $490,901,787," *Public Notice*, PNWL 94-27 (rel. Nov. 9, 1994).

[34] Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS, *Second Report and Order and Second Further Notice of Proposed Rule Making*, 15 FCC Rcd 10456, 10476 ¶ 40 (2000).

business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $40 million.[35] A "very small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $15 million.[36] The SBA has approved these small business size standards.[37] A third auction commenced on October 3, 2001 and closed on October 16, 2001. Here, five bidders won 317 (MTA and nationwide) licenses.[38] Three of these claimed status as a small or very small entity and won 311 licenses.

15. Wireless Communications Services. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses in the 2305-2320 MHz and 2345-2360 MHz bands. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years.[39] The SBA has approved these definitions.[40] The Commission auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

16. 700 MHz Guard Bands Licenses. In the *700 MHz Guard Bands Order*, the Commission adopted size standards for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[41] A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[42] Additionally, a "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[43] SBA approval of these definitions is not required.[44] An auction of 52 Major Economic Area (MEA) licenses for each of two spectrum blocks commenced on September 6, 2000, and closed on September 21, 2000.[45] Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that

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[35] *Id.*

[36] *Id.*

[37] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

[38] *See* "Narrowband PCS Auction Closes," *Public Notice*, 16 FCC Rcd 18663 (WTB 2001).

[39] Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS), *Report and Order*, 12 FCC Rcd 10785, 10879 ¶ 194 (1997).

[40] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

[41] *See* Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission's Rules, *Second Report and Order*, 15 FCC Rcd 5299 (2000).

[42] *Id.* at 5343 ¶ 108.

[43] *Id.*

[44] *Id.* At 5343 ¶ 108 n.246 (for the 746-764 MHz and 776-704 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain Small Business Administration approval before adopting small business size standards).

[45] *See* "700 MHz Guard Bands Auction Closes: Winning Bidders Announced," *Public Notice*, 15 FCC Rcd 18026 (2000).

won a total of 26 licenses. A second auction of remaining 700 MHz Guard Bands licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.[46] Subsequently, in the *700 MHz Second Report and Order*, the Commission reorganized the licenses pursuant to an agreement among most of the licensees, resulting in a spectral relocation of the first set of paired spectrum block licenses, and an elimination of the second set of paired spectrum block licenses (many of which were already vacant, reclaimed by the Commission from Nextel).[47] A single licensee that did not participate in the agreement was grandfathered in the initial spectral location for its two licenses in the second set of paired spectrum blocks.[48] Accordingly, at this time there are 54 licenses in the 700 MHz Guard Bands.

17. 700 MHz Band Commercial Licenses. There is 80 megahertz of non-Guard Band spectrum in the 700 MHz Band that is designated for commercial use: 698-757, 758-763, 776-787, and 788-793 MHz Bands. With one exception, the Commission adopted criteria for defining two groups of small businesses for purposes of determining their eligibility for bidding credits at auction. These two categories are: (1) "small business," which is defined as an entity that has attributed average annual gross revenues that do not exceed $15 million during the preceding three years; and (2) "very small business," which is defined as an entity with attributed average annual gross revenues that do not exceed $40 million for the preceding three years.[49] In Block C of the Lower 700 MHz Band (710-716 MHz and 740-746 MHz), which was licensed on the basis of 734 Cellular Market Areas, the Commission adopted a third criterion for determining eligibility for bidding credits: an "entrepreneur," which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years.[50] The SBA has approved these small size standards.[51]

18. An auction of 740 licenses for Blocks C (710-716 MHz and 740-746 MHz) and D (716-722 MHz) of the Lower 700 MHz Band commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business, or entrepreneur status and won a total of 329 licenses.[52] A second auction commenced on May 28, 2003, and closed on June 13, 2003, and included 256 licenses: five EAG licenses and 251 CMA licenses.[53] Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.[54]

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[46] *See* "700 MHz Guard Bands Auctions Closes: Winning Bidders Announced," *Public Notice*, 16 FCC Rcd 4590 (WTB 2001).

[47] *See* In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket 06-150, *Second Report and Order*, 22 FCC Rcd 15289, 15339-15344 ¶¶ 118-134 (2007) (*700 MHz Second Report and Order*).

[48] *Id.*

[49] *See* Auction of 700 MHz Band Licenses Scheduled for January 24, 2008, AU Docket No. 07-157, *Notice and Filing Requirements, Minimum Opening Bids, Reserve Prices, Upfront Payments, and Other Procedures for Auctions 73 and 76*, DA 07-4171 at ¶ 70 (WTB rel. Oct. 5, 2007); Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 1022, 1087-88 (2002).

[50] *Id.* at 1088.

[51] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999.

[52] *See* "Lower 700 MHz Band Auction Closes," *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

[53] *See* "Lower 700 MHz Band Auction Closes," *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

[54] *Id.*

19. The remaining 62 megahertz of commercial spectrum is currently scheduled for auction on January 24, 2008. As explained above, bidding credits for all of these licenses will be available to "small businesses" and "very small businesses."

20. Advanced Wireless Services. In the *AWS-1 Report and Order*, the Commission adopted rules that affect applicants who wish to provide service in the 1710-1755 MHz and 2110-2155 MHz bands.[55] The Commission did not know precisely the type of service that a licensee in these bands might seek to provide. Nonetheless, the Commission anticipated that the services that will be deployed in these bands may have capital requirements comparable to those in the broadband Personal Communications Service (PCS), and that the licensees in these bands will be presented with issues and costs similar to those presented to broadband PCS licensees. Further, at the time the broadband PCS service was established, it was similarly anticipated that it would facilitate the introduction of a new generation of service. Therefore, the *AWS-1 Report and Order* adopts the same small business size definition that the Commission adopted for the broadband PCS service and that the SBA approved.[56] In particular, the *AWS-1 Report and Order* defines a "small business" as an entity with average annual gross revenues for the preceding three years not exceeding $40 million, and a "very small business" as an entity with average annual gross revenues for the preceding three years not exceeding $15 million. The *AWS-1 Report and Order* also provides small businesses with a bidding credit of 15 percent and very small businesses with a bidding credit of 25 percent.

21. Broadband Radio Service and Educational Broadband Service. Broadband Radio Service ("BRS"), formerly known as Multipoint Distribution Service ("MDS"),[57] and Educational Broadband Service ("EBS"), formerly known as Instructional Television Fixed Service ("ITFS"),[58] use frequencies at 2150-2162 and 2500-2690 MHz to transmit video programming and provide broadband services to residential subscribers.[59] These services, collectively referred to as "wireless cable," were originally designed for the delivery of multichannel video programming, similar to that of traditional cable systems, but over the past several years licensees have focused their operations instead on providing two-way high-speed Internet access services.[60] We estimate that the number of wireless cable subscribers is approximately 100,000, as of March 2005. As described below, the SBA small business size standard for the broad census category of Cable and Other Program Distribution, which consists of such entities

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[55] Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, WT Docket No. 02-353, *Report and Order*, 18 FCC Rcd 25162 (2003) (*AWS-1 Report and Order*).

[56] *See* Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, *Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd 175, 196 (1995); Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, *Fifth Report and Order*, 9 FCC Rcd 5581-5584 (1995); 47 C.F.R. §§ 24.320(b) and 24.720(b).

[57] *See* 47 C.F.R. Part 21, subpart K; Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands; Part 1 of the Commission's Rules - Further Competitive Bidding Procedures; Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two-Way Transmissions; Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico, 19 FCC Rcd 14165 (2004) ("*MDS/ITFS Order*").

[58] *See* 47 C.F.R. Part 74, subpart I; *MDS/ITFS Order*, 19 FCC Rcd 14165.

[59] *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Eleventh Annual Report*, 20 FCC Rcd 2507, 2565 ¶ 131 (2006) ("*2006 Cable Competition Report*").

[60] *Id.*

generating $13.5 million or less in annual receipts, appears applicable to MDS and ITFS.[61] Other standards also apply, as described.

22. The Commission has defined small MDS (now BRS) entities in the context of Commission license auctions. In the 1996 MDS auction,[62] the Commission defined a small business as an entity that had annual average gross revenues of less than $40 million in the previous three calendar years.[63] This definition of a small entity in the context of MDS auctions has been approved by the SBA.[64] In the MDS auction, 67 bidders won 493 licenses. Of the 67 auction winners, 61 claimed status as a small business. At this time, the Commission estimates that of the 61 small business MDS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent MDS licensees that have gross revenues that are not more than $40 million and are thus considered small entities.[65] MDS licensees and wireless cable operators that did not receive their licenses as a result of the MDS auction fall under the SBA small business size standard for Cable and Other Program Distribution. Information available to us indicates that there are approximately 850 of these licensees and operators that do not generate revenue in excess of $13.5 million annually. Therefore, we estimate that there are approximately 850 small entity MDS (or BRS) providers, as defined by the SBA and the Commission's auction rules.

23. Educational institutions are included in this analysis as small entities; however, the Commission has not created a specific small business size standard for ITFS (now EBS).[66] We estimate that there are currently 2,032 EBS licensees, and all but 100 of the licenses are held by educational institutions. Thus, we estimate that at least 1,932 EBS licensees are small entities.

24. Common Carrier Paging. As noted, the SBA has developed a small business size standard for wireless firms within the broad economic census category of "Wireless Telecommunications Carriers (except Satellite)."[67] Under this category, the SBA deems a business to be small if it has 1,500 or fewer employees. Since 2007, the SBA has recognized wireless firms within this new, broad, economic census category.[68] Prior to that time, the SBA had developed a small business size standard for wireless firms within the now-superseded census categories of "Paging" and "Cellular and Other Wireless Telecommunications."[69] Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data. For the first category of Paging, data for 2002 show that there were 807 firms that operated for the entire

[61] 13 C.F.R. § 121.201, NAICS code 515210.

[62] MDS Auction No. 6 began on November 13, 1995, and closed on March 28, 1996 (67 bidders won 493 licenses).

[63] 47 C.F.R. § 21.961(b)(1).

[64] *See ITFS Order*, 10 FCC Rcd at 9589.

[65] 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standards for "all other telecommunications" (annual receipts of $23.5 million or less). *See* 13 C.F.R. § 121.201, NAICS code 517919.

[66] In addition, the term "small entity" under SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

[67] 13 C.F.R. § 121.201, NAICS code 517211.

[68] 13 C.F.R. § 121.201, NAICS code 517210.

[69] 13 C.F.R. § 121.201, NAICS codes 517211, 517210.